Luncheon Presentation to
D&D Focus Area Review and Symposium

I am pleased to be addressing you at this Review and Symposium.

There are a number of topics I want to discuss today.

I want to talk abut the genesis of this meeting. I believe there are lessons we can take from that that are applicable to us in our daily lives.

I want to talk about the D&D Focus Area, and what you have done for the Office of Site Closure.

And I want to talk about Jack Nicklaus.

You're probably wondering how I can possibly link all these ideas together. But I think I'll be able to do it.

First, I want to paint the "big picture" - to provide a theme for this talk.

I believe we all need to approach everything we do with the attitude of "seize the moment".

We don't know when, or if, any given opportunity will again present itself. So when we have an opportunity, we need to take that opportunity and make the most of it.

Let me illustrate the "seize the moment" concept with a couple of specifics:

I know that Paul Hart was the force behind this meeting. And his passing last year had an impact on all of us who knew him. It impacted us professionally, because we knew we would miss his guidance and well-thought-out ideas. But it also impacted us personally, because it illustrated just how fleeting our opportunities may be. Paul's passing shows us how important it is for us to have balance in our lives. We need to spend time with our families.

That doesn't mean I want you to put down your forks and catch the next plane home so you can hug your kids. (You can at least wait until the end of my talk, if not until the end of the meeting.) But it does mean that we need to ensure our lives have balance.

And talking about balance, I'm sure you've all heard about the FY 2002 budget. Our reduced funding levels are the direct result of the President working to bring balance to the entire Federal budget. I'm not going to talk about budget specifics, but it is clear that the reduced levels will slow some of the

planned progress at many sites. But to get back to my theme, I believe it also gives us some opportunities we can sieze.

We can now look at some of our challenges in a new light. Did we have a challenge that a compliance agreement required us to address over the next couple of years, but for which we didn't have a matching technology? The new funding levels may enable us to have those technologies available when needed, based on the revised schedules.

And in talking about the 2002 budget, it is important for you to know that the cuts in the Science and Technology program are NOT a reflection of the lack of need for your work. They simply reflect the budget realities we are all living with. The Science and Technology program is still as important as ever. In fact, it may be even more important, since we're going to continue to try to make progress in spite of lower funding levels. And we will continue to look to the Science and Technology program, and yes, to the D&D Focus Area, to provide us with mechanisms to make that progress.

So let me talk a little about the opportunities that the D&D Focus Area and the Office of Site Closure have taken advantage of - those times and program areas where, together, we have "siezed the moment".

These are technologies made available through the efforts of the D&D Focus Area, either through your direct development of a technology, or your support for its deployment. And they are the reason why we have been able to complete cleanup at additional sites each year.

A number of the topics you are addressing this week have already impacted, or are likely to impact, the Office of Site Closure, and indeed, the entire EM Program.

So over the next 20 minutes or so, I am going to discuss some of the progress our program has made because of the technologies and other tools the D&D Focus Area has provided to us, and highlight some of the remaining challenges we face which we hope you will help us resolve. And yes, I AM going to talk about Jack Nicklaus.

In preparing for this talk I reviewed the agenda for your meeting. I saw that you will be addressing the entire array of decommissioning issues, beginning with recent results and lessons learned from both domestic and international activities, as well as a discussion of D&D challenges we will be facing in the near term.

I applaud your willingness to address this breadth of topics, since we never know which specific piece of information will trigger our next major improvement. I have always been a strong believer in sharing lessons learned, and meetings such as this, coupled with the EM Lessons Learned Program, provide an excellent opportunity for us to communicate about our successes and our failures. And even though the successes are a lot more fun, we probably learn more from the failures!

So what are MY objectives for this meeting?

First, I think it is important to recognize that although there are still challenges in the D&D arena, I do not believe we need breakthrough technologies. Thanks to many of you in this room, we now have a suite of technologies that will enable us to decommission virtually any facility at a DOE site. But don't misunderstand me - I am NOT saying that there are no more needs! In fact, nothing could be further from the truth!

As the Office of Site Closure, and indeed, the entire EM program, proceeds to accomplish our mission of disposing of legacy wastes and remediating environmental contamination, we desperately need improved D&D technologies. NOT because we can't accomplish a specific activity, but because we need to find ways to accomplish these activities that are less labor intensive, that are quicker, and that are more protective of our workers. And most importantly, we need ways to decommission that cost less! To come back to my theme, we need to "seize the moment" and find ways to improve our way of conducting decommissioning.

In FY 2000, the Office of Site Closure decommissioned 28 facilities. In FY2001, we are scheduled to decommission 24 additional facilities. And that doesn't address the facilities that will be added to our inventory awaiting D&D when the "pipeline" reopens in 2002. (For those of you who may not be familiar with this term, this is when the landlord organizations will be allowed to transfer their excess facilities to EM for cleanup.)

We know that at some point, we will receive multiple facilities from other programs at the Y-12 Plant and the Oak Ridge National Laboratory. So even though we don't know the timing right now, it is clear that the scope of our D&D responsibilities is going to increase, even as we make progress in completing D&D of facilities each year.

I believe this background makes it clear why I'm pleased you are having this meeting, and why I am pleased to be here to talk to you.

Now, let's talk about some specifics. For this, I want to choose a couple of items from your agenda and share with you why these activities are important to the Office of Site Closure.

First, in case there was any doubt in your minds, the Office of Site Closure REALLY VALUES the Large Scale Demonstration Projects and the Accelerated Site Technology Deployment Program! The linking of demonstrations or deployments of technologies directly to a "real-life" cleanup is a great thing! When we're done, you've got more capabilities to make available to users, you've got new operational data and lessons learned to share, and we have a decommissioned facility or some remediated soil or groundwater. That's what I call a "win/win/win situation".

I'm going to lightly touch on three technologies demonstrated through the Mound Large Scale Demonstration Project that are helping us clean up that site, and also are making an impact on other sites.

Two of these technologies, the WaterWorks Crystals and the NoChar Absorbent Polymer, help us solidify liquid waste for disposal. As we search for better, faster, and cheaper ways to accomplish our mission, technologies such as these are key. They help us save money and help us get the job done sooner. And both of these technologies have been applied at other sites, thereby increasing the benefit we receive from this demonstration project.

Also demonstrated through the Mound Large Scale Demonstration Project is the Fiber Optic Tritium Detector and Quantifier System. It's a long name, and it has the potential to shorten a long process.

You're probably aware that time is money in the D&D and cleanup business. And as you may also be aware, we have a lot of tritium contamination at Mound. One of the time consuming (and therefore expensive) activities during site cleanup is to quantify how much tritium contamination exists in aqueous and organic waste streams so we can determine how each waste stream should be managed. In the past, we had to take a sample and send it to a laboratory for analysis. Not only did this take time, but the process used for the laboratory analysis generated additional waste, and, of course, cost money.

So far, evaluations of the Fiber Optic Tritium Detector and Quantifier System have indicated that this technology can indeed measure tritium contamination "real time". Future evaluations will determine if we can use it in the Mound environment. I look forward to these results, and the cost and schedule savings this technology may be able to provide us.

But not all our benefits come from the Large Scale Demonstration Projects. We have also made tremendous progress working with you on the Accelerated Site Technology Deployments.

For example, at Brookhaven National Laboratory, we have applied the In Situ Object Counting System to quickly and inexpensively assess radioactivity in samples and measure radionuclides in place. The benefits are similar to the Fiber Optic Tritium Detector and Quantifier System in that this System enables us to obtain results in the field and near real time, reducing the time and cost associated with shipping and analyzing samples. In addition, personnel exposure is reduced.

Also applied at Brookhaven with your help is the BetaScint Fiber Optic Sensor, which is specifically designed to detect and quantify strontium-90, which cannot be detected by the In Situ Object Counter System or other gamma spectroscopy techniques. Again, this technology provides rapid results to allow real time decision making, and reduces the costs, wastes, and personnel exposures associated with sampling and laboratory analyses.

The Office of Science and Technology is also helping us maintain our schedule for closure at Rocky Flats. For example, did you know there are more than 900 glove boxes contaminated with plutonium that must be addressed before the site can close? To help enhance worker safety and reduce exposure risk during size reduction of these glove boxes, the D&D Focus Area worked with Rocky Flats to deploy the Inner Tent Chamber.

Rocky Flats is also using a number of state-of-the-art cutting devices that can be controlled remotely or operated robotically. Used with the Inner Tent Chamber, these technologies help us efficiently size reduce the glove boxes at Rocky Flats.

These technologies help us ensure worker safety by reducing the time workers spend in radiation zones, and also provide for more efficient operations.

I can't discuss technologies that help protect our workers without including the "cool suit". This is an example of a technology that isn't "rocket science" (even though it was spun off from NASA). In fact, the concept is quite simple. As you know, in order to protect our workers during D&D activities, they must wear multiple layers of protective clothing. These multiple layers can lead to varying levels of heat stress, making the workers uncomfortable, and potentially endangering them. The cool suit provides a way to circulate cold water through a vest worn by workers to help them control their body temperature during D&D activities. In addition to avoiding the hazards of heat stress, the cool suit enables workers to increase their productivity during D&D activities. First demonstrated at Fernald, the cool suit has led to happier, more comfortable workers, and more rapid completion of our tasks at more than 15 other EM sites. Some of the sites where the cool suit has been used are Argonne, Ashtabula, Columbus, Los Alamos, Mound, Nevada, Pantex, Oak Ridge, Rocky Flats, and West Valley.

Now I want to shift gears and talk about what I believe still needs to be done.

We need to find a way to recycle materials within DOE that otherwise will be treated as waste.

I commend the Ashtabula site for using the Chemical Extraction Soil Washing System to reduce the cost for remediation of contaminated soil. The site is achieving volume reductions exceeding 90%, and is able to verify that the clean soil product from the operation meets free release standards. The process has saved us over $2M to date, and total savings at project completion could be as much as $7M.

But what should we do with the "clean" soil that results from treatment technology like this? At Ashtabula, the clean soil was used as clean backfill on the site, so the soil washing helped us minimize the amount of material disposed of as waste. But at the General Atomics Site in San Diego, a cost analysis showed that it was cheaper to dispose of soil contaminated with random traces of low levels of fission products as waste rather than to go through the separation and survey process.

We need to find additional, cost-effective ways to separate contaminated materials from non-contaminated materials, or to decontaminate materials, so we can avoid disposing of them as waste.

We must also find ways to minimize the volume and toxicity of the waste we will inevitably produce during D&D. For example, contaminated concrete can now be either disposed of as waste or (maybe) used as contaminated fill, if we happen to have a need for contaminated fill on the site where the contaminated concrete exists. Otherwise, it's just another large volume of waste that must be disposed of.

We need to continue to focus on reindustrialization - I believe it is our future.

We need to continue to work with our stakeholders to achieve site closure.

When the EM program was first established and we began involving our stakeholders in decision making, the stakeholders initially thought that most sites would be "cleaned up", meaning they would end up in a greenfield state. Over the past 10+ years, we and our stakeholders have learned a lot. We have both learned that a greenfield restoration is an option, just as in situ isolation is an option. And until we can agree on the future use of a site, it is very difficult to determine which of these is the "right" answer. But most importantly, we now have a dialogue with our stakeholders, so the entire range of site closure options is being considered.

Some of our sites are potential assets to the local communities. As you know, many of our liabilities at Mound, Hanford, and Oak Ridge are being cleaned up and converted into private sector assets for those communities. As we consider what the final site use will be for these and other sites, we must ensure that however a site is closed or cleaned up, we must find a home for our wastes that will not create new legacies.

Now I want to get back to my original theme for this talk - that we should "seize the moment".

Put simply, your job is to help us clean up our sites. You've been doing a wonderful job of that, and I want to say "thank you". I also want to ensure that you don't put your job, and our need to accomplish cleanup, above your personal lives.

Each of us live in a community. Many of us live in a community near a DOE site, perhaps one where cleanup is taking place. To "seize the moment", we need to enjoy that community. We need to think about what kind of environment we want to provide to our children and their children, which is what we do in our professional lives. And we need to take the time to enjoy our children, and when the time comes, their children, which is what we do in our personal lives. We can do all of this by ensuring our lives have a balance between what we do at work (which is to find better, more efficient, safer ways to clean up contamination) and what we do away from work. And it is what we do away from work, after all, that reflects our real lives.

Finally, I want to talk about Jack Nicklaus. (Did you think I would forget?)

Last week, as I was watching the Masters golf tournament, there was an interview with Jack Nicklaus. Now many of you probably know that Jack is generally recognized as the greatest golfer ever. (It may be that if Tiger keeps going on his current pace, that he will surpass Jack, but for now, Jack is still the "king".) Jack was the PGA Player of the Year five times. Jack has played in the Masters a mind-boggling 42 times, and won it 6 times

In the interview, Jack was asked what he most wanted to be remembered for. I was struck by his response, which is where the theme for this presentation came from. Jack didn't say he wanted to be remembered for being the best golfer ever, or winning the Masters more than any other player. He didn't even say he wanted to be remembered as someone who played fair and always did his best.

No - what he wanted to be remembered for was his family. He noted that his five children all live within a few miles of him, and that they are all "good kids". He was proud of them, and proud of the job he had done raising them. And it's clear from his record as the greatest golfer ever, that he didn't pay a penalty in his career for putting his family first.

So, be like Jack. Enjoy the conference. Take pride in your work, both the results you have provided so far, and those that will come in the future. But don't lose sight of what's REALLY important.

We talk a lot about priorities in our work - our compliance agreements often set them for us. But what about the priorities in our lives? We need to make sure they are the right priorities.

Think about Jack Nicklaus.

Treasure your family. And treasure your life. We never know when we, like Paul Hart, will suddenly run out of time. And we don't want to have any regrets if that should happen.

I'm sure you've all heard this, but I'm going to say it again. No one wants to have the line on their tombstone be "Gee, I wish I'd spent more time at the office".

The Office of Site Closure appreciates the support we have received from the Office of Science and Technology, and specifically the D&D Focus Area.

Enjoy the conference.

Enjoy your life!